

# **Research on Long-Term Care Homes for Older People in Brazil: Protocol for Scoping Review**

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## **Abstract**

**Background:** The fast growth of the ageing population in low and middle-income countries, such as Brazil, has allowed little time for social and health care systems to adapt. As the care needs for the most vulnerable and frail older people become increasingly complex, services and governments need to ensure that long term care homes deliver high-quality and evidence-based care to meet their healthcare needs.

**Aim:** To examine and map the range of research undertaken in Brazil regarding care homes published in peer reviewed journals.

**Methods:** This scoping review will consider all relevant peer-reviewed primary studies fully or partly conducted in Brazilian care homes including those which consider workforce (for example, e.g. healthcare professionals, care staff, and management level staff) and care home residents (older people aged 60 years and above), using empirical and original research focused on any health related topic. The searches will be conducted using bibliographic databases (MEDLINE, EMBASE, LILACS and Google Scholar) and manual searching of the reference lists of relevant studies published in English, Portuguese or Spanish from inception up to 2018. Two authors will independently screen each document by title and abstract against the eligibility criteria. In case of disagreement, a third reviewer will be consulted. Data from the included studies will be extracted and reported using tables, graphs, and narrative accounts using elements of content analysis. The Mixed Methods Appraisal Tool will be used to appraise the methodological quality of the included studies.

## **Keywords**

Long-Term Care; Care Homes; Older People; Ageing; Scoping Review; Aged

## **Background**

The number of older people is rising, with the rate of change particularly marked in low and middle-income countries. The number of people aged 60 years and older worldwide will increase from 900 million in 2015 to 2 billion in 2050.<sup>1</sup> Even allowing for technological advances which significantly change how we deliver care, Long Term Care (LTC) facilities are likely to play a continuing role in caring for the most vulnerable and frail older people, who are not able to live independently<sup>2</sup>. Institutional long term care settings are called by different names in different countries, but all provide 24-hour personal support, including help with activities of daily living, for people with health and care needs. They may or may not be staffed by health care professionals<sup>3</sup>. In this paper they will be referred to as care homes. Care homes provide long-term care and/or rehabilitation and frequently play an important part in end-of-life care.<sup>3</sup> As the care and health needs of older people become increasingly complex<sup>4</sup>, social and health services and governments need to ensure that care homes deliver high-quality and evidence-based care to meet the needs of older people.<sup>5</sup>

The fast growth of an ageing population in low and middle-income countries, such as Brazil, has allowed little time for social and health care systems to adapt.<sup>5</sup> Research on care homes is an emerging field in such countries including Brazil.<sup>6,7</sup> Investigating the current state of care homes is a priority to provide a baseline understanding upon which innovation and development can be based.<sup>8</sup>

In the past, care homes in Brazil were mostly linked to charitable work provided by religious associations to homeless, poor and vulnerable individuals, were mostly non-profit, and were not formally regulated by the government.<sup>9,10</sup> In addition, the lack of public policies addressing the quality of the provided to residents contributed to a negative view of care homes amongst professionals and the general public.<sup>11</sup> Currently, there are only a few national guidelines regulating care homes in Brazil. However, these documents are limited to establish the minimum infrastructure and hygiene requirements for such homes, rather than focusing on the quality of the care<sup>12,13</sup>.

Whilst research has been undertaken within Brazilian care homes, research has not hitherto been collated in a way that enables its scale and nature to be collectively understood. This scoping review will, for the first time, present an overview of the nature and extent of work conducted in these settings, to provide a summary for care providers and policy makers, and to inform future research endeavours in the field.

Having conducted preliminary searches on this topic in bibliographic databases, we are unable to identify any scoping reviews in direct relation to care homes, this work is therefore necessary and timely.

## **Aim**

The aim of this scoping review is to examine and map the range of research undertaken in Brazilian care homes that is published in peer reviewed journals.

## **Methods**

The need for this scoping review was identified by an international consortium including Brazilian, UK and European partners established in 2018 (LOTUS - **L**ong **T**erm care instit**U**tions in **S**ão Paulo). This protocol was designed in line with the six sequential steps proposed by Arksey and O'Malley<sup>19</sup> and Levac et al,<sup>20</sup> and reported as per PRISMA Extension for Scoping Reviews (PRISMA-ScR)<sup>21</sup>.

### ***Step 1: Identifying the research question***

The question for this review was developed during discussions held in the international LOTUS workshop on LTC conducted in June 2018 in Brazil:

'What are the general characteristics and gaps of the peer reviewed primary research conducted in Brazilian care homes for those aged over 60 years (e.g. study design, population of interest, methods used, key findings, country regions, area of focus, research quality)'.

Additional objectives included:

1. Describe the type and range of evidence conducted in Brazilian care homes for those aged over 60 years;
2. Identify the broad topic areas of current evidence published in peer reviewed journals;
3. Map the regions in Brazil which have undertaken research in this area;
4. Identify gaps where knowledge is currently lacking;
5. Identify key Brazilian long-term care stakeholders (researchers, research groups, policy makers, health service commissioners, care home managers, care home workers).

### ***Step 2: Identifying relevant studies***

Search strategy

This review will consider studies that include Brazilian older adults (60 years old and over) recruited from care homes in any region of Brazil. This may also include staff working within these settings as there is a wide range of health and social care

professionals that could be involved in the care of those living within these settings. No strict range will be set for the professionals in this review.

A comprehensive literature search will be conducted to identify all relevant peer-reviewed studies using any study design or methods, conducted in care homes for older people in Brazil, published in English, Portuguese or Spanish from inception up to 2018. Searches will be conducted in the following electronic databases: Medline (Pubmed), EMBASE (Ovid), LILACS (Literatura Latino-americana e do Caribe em Ciências da Saúde), and Google Scholar. The reference lists of all relevant studies will be checked for additional eligible manuscripts.

An initial search in Medline and LILACS was conducted, followed by an analysis of the key words used to describe the LTC settings in the title and abstract of retrieved papers, as suggested by The Joanna Briggs Institute Reviewers Manual.<sup>22</sup> The search strategy was developed iteratively, and all identified keywords and index terms were opportunely used, including: 'homes for the aged' [MeSH]; 'long-term care institutions'; 'care homes'; 'geriatric long-term care facilities'; 'nursing homes'; 'residential facilities'; 'long-term care institutions'; 'long term care institutions'; 'assisted living' ; 'old age homes'; and 'Brazil' or 'Brazilian'. In each block, the words were combined with the Boolean operator OR, and between the blocks, the operator AND (Appendix 1).

### ***Step 3: Study selection***

Studies identified in the electronic databases will be exported to an Excel® file and duplicates removed. A team of 10 academics experienced in Healthcare of Older People from Brazil and the UK will be involved in the review enabling us to include articles published in three languages (English, Portuguese and Spanish) to be considered. Two authors will independently screen each document by title and abstract against the eligibility criteria. The reviewers will then meet to discuss their decisions and any disagreement will be resolved through discussion, involving a third reviewer for consensus if needed. Eligible articles will be reviewed by two reviewers from the team independently to confirm eligibility.

#### *Eligibility criteria*

The eligibility criteria will be based on the 'population-concept-context (PCC)' framework recommended by the Joanna Briggs Institute for scoping reviews.<sup>22</sup> Eligible papers will include those that meet the following:

-Population: studies investigating the care home workforce (e.g., healthcare professionals, care staff, and management level staff), and care home residents (older people aged 60 years and above);

-Concept: empirical, and original research focused on any topic;

-Context: peer reviewed published studies carried out Brazilian care homes. Studies fully, or partly conducted in care homes for older people in Brazil will be included.

This scoping review will not select studies solely based on their outcome measures or theoretical frameworks, but we will map these to inform future research in the area. If the same study was reported in more than one publication, we will include the overall findings and treat as one study.

We will exclude psychiatric care homes, even if these include older people, as the care organization and care pathways differ from traditional care homes for older people in Brazil.

The authors of primary studies will be contacted for further information if necessary.

#### ***Step 4: Data charting***

Data from the included studies will be extracted by 10 researchers independently using an extraction form developed for the review and piloted with 10 studies. (Appendix 2).

The Mixed Methods Appraisal Tool (MMAT)<sup>23-25</sup> will be used to appraise the methodological quality of five categories of studies: qualitative research, randomized controlled trials, non-randomized studies, quantitative descriptive studies, and mixed methods studies. The tool was developed in 2006,<sup>26</sup> revised in 2011,<sup>25</sup> and the current version (2018)<sup>23,24</sup> will be adopted in this review. The MMAT can be used only to appraise the quality of empirical research. For each included article, the reviewer will choose the appropriate category of study design to appraise and rate the criteria of the chosen category. Instead of using an overall score from the ratings of each criterion, we will provide a more detailed presentation of the ratings, what may lead to perform a sensitivity analysis, when relevant.<sup>23,24</sup>

#### ***Step 5: Data summary and synthesis of results***

A standard PRISMA flow chart diagram will be used to report the numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage.<sup>21</sup> Relevant data (e.g. year and authors, area of Brazil where the study was conducted, aims/purpose, topic of investigation, study design, sample

characteristics, methods used, key findings) will be reported using tables, graphs, and narrative accounts using elements of content analysis.<sup>22,27</sup> These will be then discussed and related to the review questions and objectives, and compared with the literature.

Depending on what the details of the information are extracted we will look to separate studies according to their design (e.g. qualitative, observational, experimental), population being studied (e.g. older adults, staff members, care managers), or area of focus (e.g. nutrition, cognition, physical activity), to allow reporting and comparison of the findings. Consideration will be given to the quality, depth and breadth of the selected evidence.

### ***Step 6: Consultation***

Stakeholders (researchers, research groups, policy makers, health service commissioners, care home managers, care home workers) will be engaged throughout the study acting as consultants and knowledge users via teleconference calls, face-to-face group discussions, and email. We will invite the Brazilian Society of Geriatrics and Gerontology and influential researchers in the field, nationally and internationally, to advise on the review findings.

### **Discussion**

The proposed scoping review has the potential to identify for the first time the research conducted in Brazilian care homes for older people, and for these studies to help map the overall characteristics of care homes in Brazil. This has the potential to inform policy-makers, healthcare professionals and academics on potential gaps in the knowledge base. I can help set future directions and improve healthcare for older people living in care homes in Brazil. The generated evidence can support the development of Brazilian guidelines for long term care homes in the future, whilst helping to sustain and focus a network of Brazilian LTC stakeholders (the LOTUS consortium).

Scoping reviews are a useful way of providing an overview of the published research and the methodology is therefore a good fit for our aim. There are, though, a number of limitations with our chosen approach. By confining our search to bibliographic databases of peer-reviewed studies we may miss important research including in government documents and policy papers. We may not capture conference abstracts that represent “breaking news” or research in progress. The work will therefore describe research which has already been conducted in care homes in Brazil, rather than research which is currently being conducted in care homes in Brazil. Scoping reviews, by their nature, take a relatively superficial approach to the literature and it



is likely, that if an extensive literature is uncovered that further, more detailed, review approaches will be required to summarise important findings and conclusions.

A scoping review is, though, a start and by collating the research literature published in care homes in Brazil hitherto, we will be able to describe the current “lie of the land” which will be important for mapping future research and development work in the sector.

### **Dissemination**

The results of this scoping review will be disseminated through presentation at national and international conferences about ageing, and publication in a peer-reviewed international journal.

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### **Competing interests**

None of the authors have conflicts of interest to declare.

## **References**

1. World Health Organization. Ageing and health [Internet]. 2018 [cited 2019 Sep 20]. Available from: <https://www.who.int/news-room/fact-sheets/detail/ageing-and-health> (last accessed 30th October, 2019)
2. Damiani G, Farelli V, Anselmi A, Sicuro L, Solipaca A, Burgio A, et al. Patterns of Long Term Care in 29 European countries: evidence from an exploratory study. BMC Health Serv Res. 2011 Dec 18 [cited 2019 Jun 3];11(1):316.
3. Sanford AM, Orrell M, Tolson D, Abbatecola AM, Arai H, Bauer JM, et al. An International Definition for "Nursing Home." J Am Med Dir Assoc. 2015 Mar;16(3):181–4.
4. Kingston A, Comas-Herrera A, Jagger C. Forecasting the care needs of the older population in England over the next 20 years: estimates from the Population Ageing and Care Simulation (PACSim) modelling study. Lancet Public Heal. 2018 Sep;3(9):e447–55.
5. Beard JR, Officer AM, Cassels AK. The world report on ageing and health 20]. p. S163–6. Available from: [https://apps.who.int/iris/bitstream/handle/10665/186463/9789240694811\\_eng.pdf;jsessionid=220E0C1396B0150A25FAF88C341D3357?sequence=1](https://apps.who.int/iris/bitstream/handle/10665/186463/9789240694811_eng.pdf;jsessionid=220E0C1396B0150A25FAF88C341D3357?sequence=1) (last accessed 30<sup>th</sup> October, 2019)
6. Tolson D, Rolland Y, Andrieu S, Aquino J-P, Beard J, Benetos A, et al. International Association of Gerontology and Geriatrics: A Global Agenda for Clinical Research and Quality of Care in Nursing Homes. J Am Med Dir Assoc. 2011 Mar 1; 12(3):184–9.
7. Shepherd V, Wood F, Hood K. Establishing a set of research priorities in care homes for older people in the UK: a modified Delphi consensus study with care home staff. Age Ageing. 2016;46(2):284–90.
8. Araujo de Carvalho I, Epping-Jordan J, Pot AM, Kelley E, Toro N, Thiagarajan JA, et al. Organizing integrated health-care services to meet older people's needs. Bull World Health Organ. 2017 Nov 1;95(11):756–63.
9. Chaimowicz F, Greco DB. Dynamics of institutionalization of older adults in Belo Horizonte, Brazil. Rev Saude Publica. 1999 Oct;33(5):454–60.
10. Alencar MA, Bruck NNS, Pereira BC, Câmara TMM, Almeida RDS. Perfil dos idosos residentes em uma instituição de longa permanência. Rev Bras Geriatr e Gerontol. 2012 Dec;15(4):785–96.

11. Araújo LF de, Coutinho M da P de L, Santos M de F de S. O idoso nas instituições gerontológicas: um estudo na perspectiva das representações sociais. *Psicol Soc.* 2006;18(2):89–98.
12. Brasil SDEEDAS. PORTARIA Nº 2.874 DE 30 DE AGOSTO DE 2.000. 2.874 Ministério do Desenvolvimento Social; 2000. Available from: [https://www.mds.gov.br/webarquivos/legislacao/assistencia\\_social/portarias/2000/Portaria%20no%202.874-%20de%2030%20de%20agosto%20de%202000.pdf](https://www.mds.gov.br/webarquivos/legislacao/assistencia_social/portarias/2000/Portaria%20no%202.874-%20de%2030%20de%20agosto%20de%202000.pdf) (last accessed 10th October, 2019)
13. Brasil A-AN de V. Resolução Da Diretoria Colegiada - Rdc Nº 283, De 26 De Setembro De 2005. D.O.U. - Diário Oficial da União; Poder Executivo. 2005.
14. Camarano AA, Kanso S. As instituições de longa permanência para idosos no Brasil. *Rev Bras Estud Popul.* 2010 May 21;27(1):232–5.
15. Kanso S, Camarano AA, Mello JL, Carvalho DF. As Instituições de Longa Permanência para Idosos no Brasi. In: ABEP, editor. *Anais ABEP*. Caxambu - MG, Brazil: ABEP; 2010/ p. 1–17.
16. Camarano AA. Cuidados de longa duração para a população idosa: Família ou Instituição de Longa Permanência? *Sinais Sociais.* 2008;3(7):10–39.
17. Camargos MCS. Instituições de longa permanência para idosos: um estudo sobre a necessidade de vagas. *Rev Bras Estud Popul.* 2014 Jun;31(1):211–7.
18. Corazzini KN, Anderson RA, Bowers BJ, Chu CH, Edvardsson D, Fagertun A, et al. Toward Common Data Elements for International Research in Long-term Care Homes: Advancing Person-Centered Care. *J Am Med Dir Assoc.* 2019; 20(5):598–603.
19. Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *Int J Soc Res Methodol.* 2005 May 21; 8(1):19–32.
20. Levac D, Colquhoun H, O'Brien KK. Scoping studies: advancing the methodology. *Implement Sci.* 2010 May 21;5(1):69.
21. Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, et al. PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. *Ann Intern Med.* 2018 Oct 2;169(7):467.
22. Joanna Briggs Institute. The Joanna Briggs Institute Reviewers' Manual 2015 Methodology for JBI Scoping Reviews. The Joanna Briggs Institute, editor.

Adelaide: The Joanna Briggs Institute; 2015 Available from:  
<https://nursing.lsuhsu.edu/JBI/docs/ReviewersManuals/Scoping-.pdf> (last  
accessed 30th October 2019)

23. Hong QN, Pluye P, Fàbregues S, Bartlett G, Boardman F, Cargo M, et al. Improving the content validity of the mixed methods appraisal tool: a modified e-Delphi study. *J Clin Epidemiol*. 2019 Jul; 111:49-59
24. Hong QN, Gonzalez-Reyes A, Pluye P. Improving the usefulness of a tool for appraising the quality of qualitative, quantitative and mixed methods studies, the Mixed Methods Appraisal Tool (MMAT). *J Eval Clin Pract*. 2018 Jun;24(3):459–67.
25. Pluye P, Robert E, Cargo M, Bartlett G. Mixed Methods Appraisal Tool (MMAT) Version 2011. Montréal: McGill University. 2011.
26. Pluye P, Robert E, Cargo M, Bartlett G. Proposal: A mixed methods appraisal tool for systematic mixed studies reviews. Montréal McGill Univ. 2011; Part I:1–8.
27. Erlingsson C, Brysiewicz P. A hands-on guide to doing content analysis. *African J Emerg Med*. 2017 Sep;7(3):93–9.

## Appendix 1

### **Search strategy description - Medline (Pubmed)**

((("Homes for the Aged"[Mesh]) OR (("Geriatric long-term care facilities" OR "Nursing Homes" OR "Residential Facilities" OR "Long term Care institutions" OR "long-term care institutions" OR "Assisted living" OR "Geriatric Long-Term Care Institutions" OR "Old Age Homes" OR "care homes")))) AND ((Brazil OR Brasil OR Brazilian)))

### **Search strategy description - LILACS**

tw:((ab:("Residential Facilities")) OR (ab:("long term care")) OR (ab:("nursing home")) OR (ab:("nursing homes")) OR (ab:("Long-term care institution")) OR (ab:("assisted living")) OR (ab:("Residential Facility")) OR (ab:("Geriatric long-term care facilities")) OR (ab:("Homes for the Aged")))) AND ( db:("LILACS"))

Appendix 2

Title	First author	Journal	URL	Main topic of focus (e.g. primary outcome)	Meet eligibility criteria?	Abstract	Language	Publication date	City and/or State of data collection	First author institution	Study type	Type of setting (profit or non-profit or both)	Type of setting (rural or urban)

Number of care homes	Sample size	Participants	Reviewer	n per person	MMAT completed (yes)	MMAT queries